



The Raleigh Amateur Radio Society's **EXCITER**

GET INVOLVED

- RARS General Membership meeting: Second Tuesday of the month.
- The RARS net meets every night except Saturday @ 8 p.m. on 146.640.
- The RARS Technical & Trader's net: Saturdays @ 8:00 PM on 146.64.
- RARS meets for a monthly dinner on the First Tuesday of each month.



PUBLIC SERVICE EVENTS

Interested in helping? Visit
<https://www.rars.org/public-service.php>

frequently for our 2019
ham public service
schedule.

RARS General Meeting

Topic: Collins Radio KWM-1 Restoration

by John Green, KX4P

Date: April 9, 2019

Time: Meeting at 7:30PM

Informal gathering and refreshments from 7 - 7:30 p.m.

Where: Ridge Road Baptist Church. 2011 Ridge Rd., Raleigh

New HAM meeting, 6:00 p.m. before member meeting

Tadd Torborg, KA2DEW, New Ham Meeting Coordinator

[Click here for more information.](#)

Presidents Comments

By Carl Davis, W8WZ

This is the last issue of the Exciter before RARSfest so I begin with a reminder that if you have not already signed up to volunteer at the event please go to the RARS webpage and do so. We still need many volunteers and it is a great way to have fun, be with fellow hams and support our club.

This month I thought I would also highlight some interesting and fun Ham Radio resources that can be found on the internet. There are many more ham radio resources than the ones I will mention here, but this is a good starting point. If you have other ideas, please e-mail me and I can mention them in a future article.

Podcasts: For a few years now the ARRL has produced "The Doctor is in" Podcast with WB8IMY and W1ZR. This is a great podcast

[Continued on page 8](#)

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The Raleigh Amateur Radio Society

The Raleigh Amateur Radio Society, Inc. (RARS) was founded in 1969 and continues to serve and support the amateur radio community in the greater Triangle area. In 1999, the society incorporated a new RARS and obtained 501(c)(3) non-profit tax status.

The objectives of the club are to promote worldwide friendship through amateur radio; to be of public service by providing radio communications in times of disaster, emergency, or civic needs; to educate members in radio technique, and to provide training classes to assist in obtaining amateur radio licenses.

Anyone interested in amateur radio is eligible to apply for membership. Dues for regular licensed amateurs are \$18 per year (from July 1 through June 30). Additional immediate family members pay \$5 each per year. Dues for licensed amateurs older than 59 or younger than 16 are \$12 per year. Dues for non-licensed associate members are \$9 per year. Applications for membership may be obtained from the treasurer or on the RARS website (www.rars.org).

Exciter

The Exciter is the official newsletter of the Raleigh Amateur Radio Society. It appears each month as a PDF on the RARS website at www.rars.org. Members receive email notification when the latest version is available. Please provide your email address to the Treasurer.

The Exciter welcomes articles, advertisements, and other contributions. To submit a piece to the newsletter, please contact the Editor. The Editor reserves the right to edit any and all pieces. The submission deadline for each month's Exciter is the Saturday that is ten days before the general meeting. All submissions must be final. Drafts are not accepted.

The views expressed in the Exciter are those of the individual authors and do not necessarily reflect the views of the Editor or RARS.

Tom Lewis, N4TL, editor (editor@rars.org)

For Your Information

RARS General Meeting

Date: Second Tuesday of each month

Location: Ridge Road Baptist Church 2011
Ridge Road Raleigh, NC, 27607

Time: People begin arriving at 7 p.m. The
meeting officially begins at 7:30 p.m.

RARS Monthly Dinner

All members and guests are welcome to
the monthly (first Tuesday) RARS Supper,
6:30PM, at the Golden Corral Restaurant,
6129 Glenwood Ave., Raleigh. Informal and
Dutch, just bring your appetite and best rag to
chew. 73, Chuck, K4HF

RARS Repeaters in Raleigh

146.640 and 444.525

Join us for the nightly RARS net at 8 p.m.
on the 146.640 repeater. All hams holding a
Technician class license or higher are invited
to check in. We welcome both RARS and non-
RARS members to the net.

There is a net Listing on the RARS
website click here. [https://www.rars.org/
nets.php](https://www.rars.org/nets.php)

VE Testing

The RARS VEs will accept walk-in testing in
February, May, August and December at
5:30PM, prior to RARS membership meetings
at Ridge Road Baptist Church; the RARSfest
in April; the Cary Swapfest in July; the
JARSFest in November; and following RARS
license classes. Please bring a photo ID, your
original and a copy of your current license,
your \$14 exam fee, and any valid CSCEs that
prove passing elements beyond that of your
current license. Visit <https://www.rars.org> for
more information.

March 2019

RARS Net Monthly Summary

Check-ins: 528

Traffic Brought/Passed: 11/10

Minutes: 1201

Sessions: 31

Virginia Enzor NC4VA

RARS Net Manager

Future Hamfests

A full list of Hamfests can be found at the

[ARRL website.](#)

04/06/2019 | [Down East Hamfest](#)

Location: Kinston, NC

Type: ARRL Hamfest

Sponsor: Down East Hamfest Association

04/20/2019 | [North Carolina State Convention
\(Raleigh Hamfest\)](#)

Location: Raleigh, NC

Type: ARRL Convention

Sponsor: RARS

Website: <http://rarsfest.org>

04/27/2019 | [Catawba Valley Hamfest](#)

Location: Morganton, NC

Type: ARRL Hamfest

Sponsor: McDowell Amateur Radio Assn.

Website: <http://cvhamfest.com>

President's Message continued

where W1ZR answers questions from hams on the podcast much like he does in his QST column which shares the same name as the podcast. In 2019 the League launched a new podcast called “So What Now” that is aimed at new hams. This podcast is produced by Michelle Patnode, W3MVP, and ARRL Station Manager Joe Carcia, NJ1Q. The ARRL webpage says “Topics to be discussed in the first several episodes include getting started, operating modes available to Technician licensees, VEC and licensing issues, sunspots and propagation, mobile operating, contesting, Amateur Radio in pop culture, and perceptions of Technician license holders.” There is also a podcast for folks who like Morse Code called the “Dit Dit Podcast”. The ARRL Audio News and News line can both be listened to as podcasts as well. Two other popular podcasts are “Solder Smoke” and “100 Watts and a Wire”.

YouTube: Perhaps the richest place for ham radio content on the internet is YouTube. Two RARS Members have used YouTube to have great impact on the ham radio community. Gary KN4AQ started the Ham Radio Now program which can be viewed on YouTube and John KG4AKV runs the Space Comms channel which focuses on Amateur Satellite communications. Also, if you would like to see a particular amateur radio reviewed by a fellow ham, you can likely find a few of these homemade reviews of almost any radio on YouTube just by searching for it. I have a video on YouTube using a Vibroplex to introduce folks to Morse Code. That can be found by searching YouTube for W8WZ. One of the most popular ham radio internet programs is Ham Nation with Dr. Bob Heil K9EID.

Webpages: Most hams are likely familiar with QRZ.com, QTH.com, Eham.net and ARRL.org. Many people may not know that on the ARRL webpage you can search for upcoming Amateur Radio license exam sessions by zip code. Classes can also be found on the ARRL webpage. This is a great resource for people who are looking to take a test to become a new ham or upgrade their license. RARS runs a great webpage too including a classifieds section and an archive of past newsletters. Also on the RARS webpage are video recordings of our Technician Licensing Course. So, if someone wants to become a ham anywhere in the country, she or he can simply watch our videos and benefit from the excellent instruction given by W4CP then simply find a VE session near them to take their test. We offer this online learning free of charge to anyone who wants it over our webpage. I have recently come to appreciate a webpage for learning/practicing Morse code called www.morsedx.com. To get full advantage of that webpage you must pay a fee but there are parts of it available for free. I listen to books sent over Morse Code via that webpage as a way to improve my ability to do head copy.

Apps: The app “Ham Morse” is a great Morse Code app. It sends simulated QSOs at any speed you select. You can also listen to the news wire stories of the day from sources like the BBC, CNN, ABC, NBC, FOX, ESPN, New York Times, Wall Street Journal, USA Today and others sent in Morse code at any speed.

This list does not even begin to scratch the surface of what the internet offers for ham radio operators but may serve as a good starting point. Enjoy our hobby in whatever way is most fun for you and I hope to see you at RARSfest!

RARS March Membership Meeting

RARS celebrated its 50th anniversary at the March 12, 2019 meeting. There were five charter members present. See the picture on the next page. Lee Johnson also is a charter member. He was not able to make it to the meeting but he did send a picture of himself and his grandson.

We had a birthday cake with our normal refreshments.

Eleven RARS Awards were given out see the list on a following page.

There were six door prize winners.

The RARSfest Chair, Tara Goodwin W4TSW gave a presentation about upcoming RARSfest.



March Membership Meeting, Door Prize winners



Left to right, Tadd Torborg, KA2DEW; Dave Thomas, K4SAN; Richard Markle, KA3PSK; Virginia Merkle, KD4OKP; Charles Stickland, WA4OSS; Robert Starkenburg, W4TTX

RARS Fiftieth Anniversary Party

RARS Charter Members who attended the 50th Birthday Party



Left to right, Louis Alexander, K4BYN; Carroll Willis, KD4JH; Bill McDowell, K4CIA; Bob Workman, WA4ZZN; Dave Langley, W4YDY



Lee Johnson also is a Charter member of RARS. He was not at the birthday party but did send a picture of himself and his grandson John, who lives in Moose, WY. Lee is helping him get into the hobby with an SDR setup for his birthday. Lee's old call is, WA4ZNA and his new call N4WYE.

March 2019 RARS AWARDS

The following Certificates were presented to the person listed by Carl Davis, W8WZ.

- James R. Bittle, KE4PNT- In Appreciation for being the NCS for the RARS Tuesday night Net on RARS Regular Meeting nights for several years
- Karl F. Bowman, W4CHX – In appreciation as the RARS FM Repeater Chairman from 2012 to 2018
- Jeff Wittich, AC4ZO – In appreciation for an exemplary job as the RARSfest Pre Registration Manager for several years
- Bob Chapman, NC1X – In appreciation as the head of RARSfest Ticket Sales for several years
- Marty Young, W4MY - In Appreciation for being a RARS Director at Large for 2018
- Bill Mars, AK4BL - In Appreciation on being Food Service Chairman for 2017 and 2018.
- Jack W. Baker, K4WFJ - In Appreciation as Instructor for the Boy Scout Ham Radio Merit Badge at Camp Durant in January 2019 with 40 successful Boy Scouts.
- Alan Pitegoff, AB4OZ - In Appreciation of his dedication as the RARSfest Jpole Antenna Construction Instructor for several years
- Joe Squashic, W4TTO - In Appreciation of his being a RARS Net Control Station as a regular and substitute at least 730 times since 2004
- Charlie Davis, WA3UTC - In Appreciation of heading up the Triangle 6 Meter AM Net to the enjoyment of all.
- Tara Goodwin, W4TSW - In Appreciation of her being the first RARS member to hold three RARS Board Member positions at the same time.



Bob Chapman, NC1X; Alan Pitegoff, AB4OZ; Tara Goodwin, W4TSW

The others were not present at the meeting.

*New HAM meeting, 6:00 p.m. before the
member meeting*

Tadd Torborg, KA2DEW, New Ham meeting Coordinator

*The New Hams meeting is held every month before the regular RARS meeting.
We'll try to start by 6pm. We try to address topics in a manner that will be of help
to hams in their first year of operation.*

At the March meeting, Fin NC4FG and Tadd KA2DEW brought oscilloscopes and some devices to generate interesting signals. We observed audio wave-forms and high speed digital data on three generations of oscilloscopes including an early 80s, late 90s, and 2015 era professional test equipment class oscilloscopes. I think any ham should have an oscilloscope of their own, but I would recommend against spending more than \$100 on the item. You can get a new scope for \$30 as a semi-kit and you can definitely get one for under \$100 on the used market. The two older oscilloscopes demonstrated are under-\$100 class used units. Look for Tektronix used equipment at RARSfest. 50mhz or better, and dual trace, should be your bottom limits in function at that price. New probes can be had for under \$20 a pair so don't sweat the scope probes. Oscilloscopes can be used to investigate digital and audio signals on home-built projects, or to check power supply noise. In our local packet radio network project (TARPN) we use an oscilloscope at every site to check the receive audio from the FM transceiver, being fed into the modem. The live audio-wave-form shown on the oscilloscope makes it very easy to make adjustments or show that a problem is in the receiver or in the digital equipment.

At our next meeting, John KG4AKV will do a show and tell about talking with other hams via satellite, at distances of up to 1000 miles, with inexpensive portable equipment. Other hams are invited to bring their own devices they've used to track satellite and to talk through them.

73 Tadd, KA2DEW



Tadd Torborg, KA2DEW,
demonstrating an oscilloscope



The March New Hams meeting

April Meeting Presentation

Collins Radio KWM-1 Restoration Story

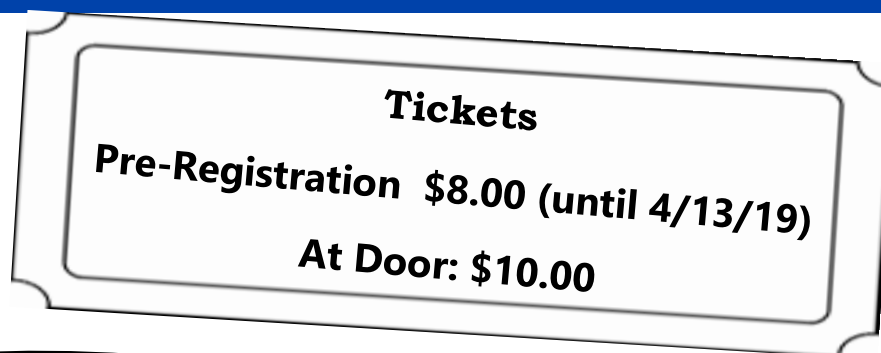
Collins Radio is well known for the design and production of quality equipment. The evolution of many models introduced major engineering innovations still incorporated in ham rigs today. The KWM-1, which was introduced in 1956, was the first commercially produced HF transceiver in one small unit for mobile or fixed station use. It provided SSB phone operation rather than the ubiquitous AM mode. In fact AM operation was not offered on the unit.

Very few KWM-1 transceivers were produced in order to sample the market. It proved to be such an immediate success, it was upgraded and manufactured as the popular KWM-2. It then became one of the most famous pieces of equipment in ham radio history.

John Green, KX4P, was fortunate to acquire one. After months of work, the unit was restored and is in full operation. A PowerPoint presentation tells the story of the restoration effort with movies of resulting QSOs.



Collins KWM-1 Transceiver



RARSfest

- Huge All Indoor Flea Market with 300+ Tables
- Commercial dealer booths
- Door Prizes
- Walk-In License Exams
- Hands-On You-Build-It Project Table
- Meetings and Forums
- QSL Card checking for ARRL and CQ Awards
- Indoor Fox Hunt
- Satellite Communications demonstration
- SKYWARN basic spotter training at 1:30pm

100,000 SQ Foot

April 20th

8am-3pm

<https://www.rars.org>



47th Annual RARSfest ARRL NC State Convention April 20, 2019 at NC State Fairgrounds

March 2019

Spring Into A Great Time!!!

Even though the calendar says Spring has arrived, and our clocks are turned, it seems that someone forgot to inform Mother Nature here in North Carolina of the fact. Maybe she is distracted planning her trip to the 47th Annual RARSfest convention, and ARRL NC State Convention, that will be held at the North Carolina State Fairground on April 20th, 2019, presented by The Raleigh Amateur Radio Society. If that's the case then who can blame her for being distracted?

Pre-Registration tickets are still available at <https://www.rarsfest.org/prereg.php> and will only be available at this discount price until April 13th. Tickets purchase at the door will be \$10.00. So save money and skip the lines by purchasing ahead of time! Curious as to what this ticket enables you to enjoy? Well look at it as the Disney World ticket of the HamFest world.

First off, we are proud to host many wonderful forums including ARRL, D-Star, NWS Basic Spotter Training, and even a forum dedicated to New Hams, or those wanting to get more involved. Not to mention Satellite Demos, QSL checking, and a Fox Hunt, Oh My!!! For more information check out the Forums page of our website: <https://www.rarsfest.org/forums.php>

Also, for those who want a more hands on experience, we are bringing back our popular "Build a J-Pole Table" Where for 5.00 you can go home with your very own J Pole built by your own hands but with the help from our talented and dedicated team. We do want to note that this is primarily an adult activity. Due to safety issues **EVERY** individual, under 16 years of age, **MUST** be accompanied by an adult!

Then don't forget that this is held in the Jim Graham building, a 100,000 sq foot building that will be packed with great deals. We will have many notable names in our dealer section.

47th Annual RARSfest ARRL NC State Convention April 20, 2019 at NC State Fairgrounds

ARRL; for any of your questions and meet and greet with our Roanoke and NC team. Curious to see the whole list then click here: <https://www.rarsfest.org/vendors.php>

And once you're done hunting the great deals in the Dealer area you can head back to our huge flea market where you can find great deals, amazing people, and ton of fun shopping. Want to be a part of the flea-market community with your own table? Not a problem! They are still available and can be purchased at <https://www.rarsfest.org/fleamkt.php>

Know someone looking to get their license or are you ready to upgrade your own? We will have a great team of VE's on site with a testing session that begins at 9am; No Appointment Needed! **But walk-ins will end at 10am so get there early!** For more information check out the License Exam page at <https://www.rarsfest.org/exams.php>

Hopefully you will be one of the lucky ones to leave the event with one of our great door prizes, and you do not have to be present to win! At 9am we will have our 100.00 cash drawing for pre-registration tickets only. Then at 10am, 11am, 12pm, and 1pm we will have 100.00 cash prize drawings followed by our 2pm grand prize drawing which is a Yaesu FT-891 HF 6m 100w All-Mode Mobile donated by KJI Electronics

Need to know more? Then go to our RARSfest page, <https://www.rarsfest.org/>, to get all the up to date information on Forums, Schedules, Demos, Shopping, and so much more. We look forward to seeing YOU in just a month!!

Tara Goodwin – W4TSW

RARSfest Chair

RARSfest Dinner 2019

HELLO to All RARS Members and Your Families!

It is again time for the annual RARS Hamfest, which includes the annual RARS Hamfest Dinner held the evening before the day of the Hamfest.

The **Hamfest Dinner is scheduled for April 19 at 7:00 pm** in the Social Room of the Jim Graham Building on the NC State Fairgrounds. All club members and your families or significant others, and all RARSfest volunteers are invited to attend this event. We also welcome the vendors and dealers who will be selling/trading goods and offering other services during the RARS Hamfest.

The meal is **FREE**. RARS provides the pork barbecue, fried chicken, barbecue chicken, slaw, green beans, boiled potatoes, hush puppies, and drinks. We suggest that you consider bringing a side dish of deviled eggs, baked beans, other cooked veggies, raw veggie trays and dips, tossed salads, pasta salads, or desserts. The items I have listed in green have proven to be popular with folks as they go through the serving lines after getting plates filled with the food the club provides.

Can I count on you to contribute a side dish, preferably divided into two disposable containers? You do not need to provide serving utensils. We will have two serving lines and try to have the same items in both lines. **Food items need to be brought to the Jim Graham Building by 6:15 or as close to that time as possible.** We do not have refrigeration for foods, so keep this in mind if you need to bring something earlier in the day. Salads, vegetable trays and desserts would not need refrigeration, but even these items do not need to sit for hours before being served. You do not need to let me know what you might bring, but please e-mail me if what I have indicated is not clear.

We ask you to please limit desserts to cookies, cupcakes, brownies, or poundcakes. It is difficult and messy to slice pies or frosted cakes without water to clean the area after cutting the items.

Thanks so much for giving my request for items of food every consideration. **Should you not be able to contribute an item of food, you are still very much encouraged, invited, and welcome to attend the dinner!** Please, come have dinner with a fine group of friends and fellow Hams! Our Friday night dinners have proven to be very popular and enjoyable over a period of *at least 20 years*.

Looking forward to having you and your families join us for dinner on April 19 at 7:00 pm.

Again, all are welcome!

Joanne Mars AA3N

jgmars2009@gmail.com

NOW HIRING

Do you love ham radio and hamfest? Are you good at organizing and enjoy puzzles? Want to give back to your radio club? Then join the RARS *fest* committee as our next Pre-Registration/Flea Market Coordinator.

*coordinate table assignments in the flea market

*Coordinate pre registration payments for tables and tickets

*Assist with RARS *fest* set up

Benefits: Helping out RARS and RARS *fest* with an very important lead position.

Pay: The awesome feeling you get when you volunteer in an organization you love!

Join today and have the benefits of mentoring by someone who has held the position for many years!!!

For more information please contact Tara Goodwin W4TSW or Chuck Littlewood K4HF

Future RARS Meeting Topics

Titles, topics, and speakers subject to change.

5/14/2019	Amateur Radio Direction Finding with a demonstration on 2 and 80 meters	Ruth Bromer, WB4QZG, & Joseph Huberman, K5JGH
6/11/2019	Field Day	Bob Starkenburg, W4TTX
7/9/2019	80 foot tower installation with 40/30 Optibeam	Dave Wood, W4EJ
8/13/2019	What makes FT8 work?	Chuck Till, K4RGN
9/10/2019	Open Source Design Tools for Amateur Radio including KiCAD	Dan Marks, KW4TI
10/8/2019	RARS Officers nominations RARS Auction	Election committee & Carl, W8WZ



11:30 AM every Thursday a group of Hams get together for Lunch at Taco Bell. The address is 7036 E Hwy 64 Knightdale, 27545. 1.2 miles east of I540.

Everyone is welcome!



March 28, 2019

Left to Right: Ken AD4GX, Glenn NC4NC, David WA4DAG, Mark KM4JRH, Bob N4GEB,
Joe K4HEW, Charley WA4OSS, Jim KM4WRK, Dennis WZ0Q, Alan AB4OZ, Adrian KM4CSH

RARS Birthdays

Susan Murray		04/01
Devin	KN4FVH	04/01
Roger	KB4FEU	04/02
Bob	W4TTX	04/03
Rob	KM4MLY	04/03
Garry	KM4MMC	04/07
Henry	WB2AGA	04/08
Ginger	KD4OKP	04/08
William	KN4LHH	04/09
Julia	KT4JR	04/09
Dennis	NC4DK	04/10
Richard	G7EIX	04/11
Bob	K2QJ	04/11
Mike	KK4QMA	04/12
Dave	K4KDP	04/13
Ian	NOIAN	04/13
Thomas	N4IZE	04/15
Cindy	KB8LVU	04/15
Tom	NC4TS	04/15
Albert	N4AGG	04/16
Dick	KB1HIW	04/17
Ryan	N7RYN	04/17
Bob	KG4BDX	04/18

RARS Birthdays

Kirk	KI4RK	04/19
John	W4WWD	04/20
Peter	K2AXI	04/21
Fin	NC4FG	04/22
Joanne	AK4RJ	04/23
Pete	KI4LWQ	04/23
Dave	KG4OPZ	04/24
Patrick	W4NMS	04/25
Don	WA4AVU	04/26
Charlie	WA4OSS	04/27
Joe	KT4JOE	04/27
Daniel	AG4DB	04/28
Stan	WA2KQY	04/29
John	NC4JP	04/29
Tara	W4TSW	04/30

New RARS Members

Mike Oatsvall	N4BRS
Wallace Brame	W4IAS
Kevin Swiger	WN4KLS



Old Time Radio Shows

Broadcast radio started many years ago in the 1920s. I asked one of my aunts who is in her 80s about OTR. She said the whole family would listen to the old shows. She mentioned The long Ranger, My Favorite Husband and others.

Today if you want to listen to these shows there are many ways to do it.

This website has many free recordings. <https://archive.org/details/oldtimeradio>

There are other websites that are setup to stream the audio from the old shows. One of them is WNAR. (Nuts About Radio). Their web site is <http://www.wnar-am.com/graphical/>

Many times when I am working in my shop I will take my laptop and connect it to good quality computer speakers and listen to WNAR.

Another one is Antioch OTR at this URL <http://radio.macinmind.com/>

You can find others by searching for OTR on Google.

If you have an [internet radio](#), do the same thing and search for OTR.

SiriusXM satellite Radio has OTR on channel 148.

There are free apps for your cellphone and tablets. I use one called, Old Time Radio Player. It has eight different genres and many different shows. Here are the titles of a few, 21st Precinct, The Black Museum, Calling All Cars, Perry Mason, Tales of the Texas Ranger, Superman, Challenge of the Yukon, Boston Blackie, Philip Marlowe, Sherlock Homes, Yours Truly, Jonny Dollar, X Minus One and many others.

William Conrad was Mat Dillon in Gunsmoke on the radio
Lucille Ball was the lead character in My Favorite Husband.

You can also buy OTR recordings. Here are two places <https://www.otrcat.com> and www.radiospirits.com.

73 Tom, N4TL

A NEW HOME FOR MY ELECTRO-RESALES CODE PRACTICE OSCILLATOR

Article by Howard A. Goodman, N4KYW

I assembled my Electro-Resales CPO shortly after I received the kit. Then, after playing with it for a few days I set it aside and all but forgot about it. Meanwhile, I had acquired a vintage tube -type CPO manufactured by Telegraph Apparatus Company (TAC). I soon discovered the TAC CPO was not operable. I diagnosed the cause to be a petrified audio output transformer and a possibly bad 117L7GT vacuum tube, which I had no way of testing because of its unusual filament rating.

The 117L7GT was still plentiful and would be relatively cheap to replace. However, the audio output transformer would be near impossible to replace, let alone find, after half a century. That's when I decided to arrange a 'marriage' between the defunct TAC and my Electro-Resales CPO with its excellent tone.

Since I am not a 'purist' so I felt no remorse in stripping most of the vintage components from the chassis of the TAC CPO, with the exception of the original speaker. Once the chassis was bare, I mounted the circuit board of my Electro-Resales CPO to the top using standoffs. In the



Fig 1. Electro-Resales CPO mounted above chassis of vintage TAC CPO. Original terminal strip on rear panel was retained for connecting telegraph key.

Continued from the previous page

process I made only two modifications to the CPO circuit board, both minor.

1. Removed the on-board volume control and replaced it with a full-size volume control mounted in an existing hole in the front panel of the chassis.
2. Removed the on-board On/Off switch and replaced it with a full-size switch opposite the new volume control pot.

The result may be seen in these photos.



Fig 2. Underside of chassis from vintage TAC CPO, showing addition of full-size volume control and on/off switch. The disc ceramic cap was added to keep WQDR-FM's signal from invading the CPO

Continued from the previous page



Fig 3. Oblique view of front panel of chassis, showing new on/off slide switch and volume control. Circuit board of Electro-Resales CPO may be seen on top.



Fig 4. TAC CPO, revitalized by addition of Electro-Resales CPO and powered by external 9-volt wall adapter.

Continued from the previous page



Fig. 5. Original TAC CPO components. Tube socket was cleaned and reassembled to chassis for no particular reason

Vintage Hallicrafters TV



No color or remote control. What does this TV have that 99% of the TVs made after it don't have

Gulf Coast RC Spring Hamfest March 16, 2019

Charles good sent the exciter a few pictures from the Hamfest.



I was down in Florida last week and by coincidence, the subject event was being held about 29 miles away. It was a parking lot style Hamfest held at a local preschool called Millennium Academy near New Port Richey, Florida. The event was hosted by the Gulf Coast Amateur Radio Club – a very nice and friendly group of people (as most AROs are). I met one person who drove 4 hours from St. Augustine, Florida to attend. It's a shame they did not have a prize for the person who drove the farthest (cause I would have won for certain). 73, Charles KM4AMT

RARS Classifieds

Copied from <https://www.rars.org/classifieds.php>

The items below were listed within the last 30 days on the RARS website.

Misc Working Ham Radio Items

Posted March 13th, 2019 by: K4HF Contact: k4hf@arrl.net

Two New 4' copper coated steel ground rods \$4 each

MFJ MFG Model 464 Keyer/Reader as new, with manual \$65

MFJ 901B HF Antenna Tuner \$45

MFJ 1622 Window Mount Antenna 40 to 2 Mtrs \$55

MFJ 1642 Portable Whip Antenna Tuner \$60

Svinz Alarm Day Clock, w/box and manual \$25

Nagoya NA-771 SMA Female Extended 2/440 H/T Antenna \$10

Alpha Delta Model TT3G50 HF to 300 MHz Circuit Protector \$20

Calrad Field Strength Meter \$5

Palomar Noise Bridge \$5

LDG Model AT-200PRO 200 Watt Autotuner \$160

Four Element Portable 2 Meter beam \$30

Contact me by e mail, preferred, or (919) 872-6555. Thanks, Chuck

ICOM IC-718 160 to 10 Meter 100 Watt HF Transceiver w/DSP

This transceiver comes with mike, cord, manual and an LDG IT 100 external auto antenna tuner. An optional power supply available. Excellent condx - \$450

Contact me by e mail, preferred, or (919) 872-6555. Thanks, Chuck

Tentec Eagle 160 - 6 Mtr HF 100 Watt Transceiver Package

Contact: k4hf@arrl.net

This radio comes with the matching Tentec Model 963 Power Supply and Model 307 External Speaker.

Internal antenna tuner, Hand mike, cord and manual included. Excellent condition - \$795. Contact me by E Mail preferred, or (919) 872-6555 Thanks - Chuck

FREE 30' Freestanding tower and other tower parts

Posted March 7th, 2019 by: N4BRS

Contact: mike.oatsvall@gmail.com

One complete 3 section 30ft freestanding tower. One 4 section telescoping/foldover tower approx 80ft.

Note: The third section was damaged in a microburst and will need repair. The first two sections and final top section are fine. Finally, two misc random sections.

All free, you move.

Located in Raleigh near Ridge and Wade.

Thanks, Mike, N4BRS , 919-946-0794

Minutes

Raleigh Amateur Radio Society

Board Members Meeting

They will be published in a future issue of the Exciter.

Minutes

Raleigh Amateur Radio Society

Members Meeting

Date | time 03/12/2019 @ 7:30pm | *Meeting called to order by* Carl Davis (W8WZ)

In Attendance

The monthly membership meeting of the Raleigh Amateur Radio Society met at the Ridge Road Baptist Church in Raleigh. The meeting was called to order by President Carl Davis (W8WZ), at 7:32 pm.

The pledge of Allegiance was recited

There were 58 Members and 4 Visitors

Visitors were Susan Langley-Jones (WA4AKB), Gary Lamunion, Ken Workman, Jim Weldon (WA4DPI)

Approval of Minutes

Secretary determined a quorum was present, and the February minutes were approved

Continuing Announcements

The RARS dinner takes place monthly on the first Tuesday (next: April 2nd) at 6:30p.m. at the Golden Corral; 6129 Glenwood Ave, Raleigh.

Minutes continued from the previous page

The next board meeting, which is open to all our members, will be Tuesday March 19th at 7pm in the church conference room.

Tonight's after-meeting gathering, for any who are interested, will be at the Rudinos at 3101 Edwards Mill Rd, Raleigh.

A new ham/Elmer's meeting with new hams, and anyone interested, takes place before each membership meeting at 6pm at the Ridge Road church and presented by Tadd (KA2DEW)

Prior to this meeting they spent the class testing Oscilloscopes and in April there will be a satellite demo by John Brier (KG4AKV)

Door Prizes

There were 6 winners in our door prize drawing.

Virginia Merkle (KD4OKP), Charles Strickland (WA4OSS), Richard Merkle (KA3PSK), Bob Starkenburg (W4TTX), David Thomas (K4SAN), Tadd Torborg (KA2DEW)

Congratulations to our March Winners; you can find their picture on our Facebook page

Vice President Report/Exciter Chair-Tom N4TL

Tom reported that the presentation for April will be the Restoration of a Collins KWM-1 transceiver, by John Green (KX4P).

Treasurer's Report-Greg KE4PAX

Greg reported that we currently 391 members and reminded those in attendance that he is available to discuss the budget or their membership status.

For those interested in official treasurer report can contact Greg (KE4PAX)

Secretary's Report-Tara W4TSW

Present but No Report

Board and Committee Reports

Education Director-Carl W8WZ Carl (W8WZ) announced that the education team is actively looking for a new place to host their fall and spring classes and asked the membership to let them know if anything they are aware of is available.

Field Day Chair - Bob W4TTX: Bob reminded the club that it is never too early to be thinking of Field Day and that it will be

Minutes continued from the previous page

held June 22-23 at the Carroll farm. He has the tents and misc. items rental agreements started and he is working on the caterer.

Board and Committee with No Report

Public Service - John K3RHJ

Food Service - Richard N1FUA

ARRL Liaison - Chuck K4HF

Youth Director - Murray K4MHM

Past President - Dennis NC4DK

Webmaster - Hank K4HM

W4DW/W4RNC Trustee - Jeff AC4ZO

Director at Large - Alan AB4OZ

Director at Large - Joanne AA3N

Net Manager - Virginia NC4VA

FM Repeater Chair – Chuck W3WZN

RARSfest Chair-Tara W4TSW

Public Information Officer – Tara W4TSW

NCQSO Party Chair - Marty W4MY

Old Business

New Business

Additional Business/Comments/Announcements

This month's meeting was also the 50th anniversary of the Raleigh Amateur Radio Society. The club celebrated by having a large cake and the Secretary decorated the space with 50th birthday balloons, streamers, and banners. The President asked

Minutes continued from the previous page

the membership to stand up and then sit down, depending on how many years you have been a member, until on those who had been members 40+ years were left standing. We also had founding members visiting from out of town. It was a very festive and proud occasion.

There was a discussion regarding the new Telephone Bill, where drivers will not be able to use their cell phones in the car, but the ARRL said this would not affect Ham Radio Operators.

This month's meeting is also our yearly RARS awards where the club gives awards to those in the club, and community, who have performed in the service of Amateur Radio. This year's award winners are:

James Bittle (KE4PNT) for performing Net Control on Tuesdays during our Membership Meeting

Karl Bowman (W4CHX) for his service as the FM Repeater Chair from 2012-2018

Bob Chapman (NC1X) for his continuous years of service as the RARSfest Admissions Lead

Jeff Wittich (AC4ZO) for several years of service as Pre-Registration lead at RARSfest

Marty Young (W4MY) for his service as Director at Large in 2018

Bill Mars (AK4BL) for his service as Food Service Chair from 2017-2018

Jack Baker (K4WFJ) for serving as a Boy Scout instructor, for the radio merit badge, at Camp Durant in January 2019

Alan Pitegoff (AB4OZ) for his continuous years of service as the RARSfest Build a J Pole instructor and organizer

Joseph Squashic (W4TTO) for running the RARS net control 730 since 2004

Charles Davis (WA3UTC) for his weekly running of the Triangle 6m am net every Monday

Tara Goodwin (W4TSW) for being the first member to hold 3 board member positions at the same time.

Congratulations to our 2019 Award Recipients

Next Meeting

04/09/2019, 2011 Ridge Road at 7pm

Meeting was adjourned at 8:52 pm

Meeting Minutes taken and Submitted by Tara Goodwin W4TSW